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AUG 04 2005

Anderson et al.
Serial No.: 10/061,969
Page 2 of 8

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listing of the claims in the application:

LISTING OF THE CLAIMS:

Claims 1-29 (canceled).

Claim 30. (original) A microarray comprising a solid phase support and at least about 500 cells per square centimeter wherein each cell contains a agent of interest that is not chemically bound to the solid phase support.

Claim 31. (original) The microarray of claim 30 containing at least about 1,000 cells per square centimeter.

Claim 32. (original) A microarray comprising a solid phase support and at least about 500 cells per square centimeter wherein each cell contains an agent of interest which is a macromolecule, a microorganism, a plant or animal cell, an organelle or a fraction of a biological cell.

Claim 33. (original) The microarray of claim 32 containing at least about 1,000 cells per square centimeter.

Claim 34. (original) A microarray comprising a solid phase support and at least about 500 cells per square centimeter wherein each cell contains an agent of interest that was synthesized prior to contacting the solid phase support.

Anderson et al.
Serial No.: 10/061,969
Page 3 of 8

Claim 35. (original) The microarray of claim 34 containing at least about 1,000 cells per square centimeter.

Claim 36. (original) A microarray comprising a solid phase support and at least about 500 different cells per square centimeter wherein each cell is formed by a solid material adhered to said solid phase support wherein each solid material contains a agent of interest.

Claim 37. (original) The microarray of claim 36 containing at least about 1,000 cells per square centimeter.

Claim 38-55 (canceled)

Claim 56. (original) A microarray comprising a solid block on an inert solid support, the solid block containing a plurality of cells exposed to the surface of the block wherein each cell contains a different agent of interest and was independently prepared and embedded into the solid block before mounting on the inert solid support.

Claim 57. (original) The microarray of claim 56 wherein the block is less than 50 μm thick.

Claim 58. (original) The microarray of claim 57 wherein the block is less than 20 μm thick.

Claim 59. (original) The microarray of claim 56 wherein the block contains at least 100 cells.

Claims 60-65 (canceled).

Anderson et al.
Serial No.: 10/061,969
Page 4 of 8

Claim 66. (original) A microarray comprising: a solid phase having a surface, and a plurality of structures bound to said surface, wherein each of a plurality of structures has an immobilized agent of interest available for binding to a target, wherein the target is a binding partner for the agent of interest, and wherein the microarray contains a plurality of different agents of interest in a corresponding plurality of different structures.

67. (original) The microarray of claim 66, wherein the structures are permeable to the target.

68. (original) The microarray of claim 67, wherein the structures are a gel.

69. (original) The microarray of claim 66, wherein the structures are made of impermeable material and the agent of interest is immobilized on a surface thereof.

70. (original) The microarray of claim 69, wherein each of the structure forms a hollow chamber with the agent of interest immobilized on an inner surface of the hollow chamber.

71. (original) A microarray comprising: a solid phase having a flat surface, and a plurality of structures projecting away from the plane of the solid phase, wherein each of a plurality of the structures an agent of interest, wherein the agent of interest is available for binding to a target in a sample applied to the microarray, wherein the target is a binding partner for the agent of interest, and wherein the microarray contains a plurality of different agents of interest in a corresponding plurality of different structures.

72. (original) The microarray of claim 71, wherein the structures are made of impermeable material and the agent of interest is immobilized on a surface thereof.

*Anderson et al.
Serial No.: 10/061,969
Page 5 of 8*

73. (original) The microarray of claim 71, wherein solid material between the structures is removed.

Claims 74-80 (canceled).

Claim 81. (new) The microarray of claim 30 wherein the agent of interest is a macromolecule, a microorganism, a plant or animal cell, an organelle or a fraction of a biological cell.

Claim 82. (new) The microarray of claim 81 wherein the macromolecule is a protein.

Claim 83. (new) The microarray of claim 30 wherein the agent of interest is synthesized prior to contacting the solid phase support.

Claim 84. (new) The microarray of claim 30 wherein each cell is formed by a solid material adhered to said solid phase support and wherein each solid material contains an agent of interest.

Claim 85. (new) The microarray of claim 30 wherein the solid phase support is a solid block on an inert solid support, the solid block containing a plurality of cells exposed to the surface of the block wherein each cell contains a different agent of interest.

Claim 86. (new) The microarray of claim 30 further comprising a plurality of structures bound to said surface, wherein each of a plurality of structures has an immobilized agent of interest available for binding to a target, wherein the target is a binding partner for the agent of interest, and wherein the microarray contains a plurality of different agents of interest in a corresponding plurality of different structures.

Anderson et al.
Serial No.: 10/061,969
Page 6 of 8

- Claim 87. (new) The microarray of claim 86, wherein the structures are permeable to the target.
- Claim 88. (new) The microarray of claim 87, wherein the structures are a gel.
- Claim 89. (new) The microarray of claim 86, wherein the structures are made of impermeable material and the agent of interest is immobilized on a surface thereof.
- Claim 90. (new) The microarray of claim 86, wherein each of the structure forms a hollow chamber with the agent of interest immobilized on an inner surface of the hollow chamber.
- Claim 91. (new) The microarray of claim 30 wherein the solid phase support has a flat surface, and a plurality of structures projecting away from the plane of the solid phase support, wherein each of the plurality of the structures has an agent of interest bound thereto, and wherein the microarray contains a plurality of different agents of interest in a corresponding plurality of different structures.
- Claim 92. (new) The microarray of claim 91 wherein the structures are made of impermeable material and the agents of interest are immobilized on a surface thereof.
- Claim 93. (new) The microarray of claim 91 wherein solid material between the structures was removed.
- Claim 94. (new) The microarray of claim 31 containing at least about 5,000 cells per square centimeter.
- Claim 95. (new) The microarray of claim 94 containing at least about 10,000 cells per square centimeter.

Anderson et al.
Serial No.: 10/061,969
Page 7 of 8

Claim 96. (new) The microarray of claim 95 containing at least about 100,000 cells per square centimeter.

Claim 97. (new) The microarray of claim 30 further comprising a hydrophobic material between the cells on the solid phase support.

*Anderson et al.
Serial No.: 10/061,969
Page 8 of 8*

Election

In response to the Restriction Requirement mailed July 5, 2005, Applicants hereby elect with traverse Group XI, which includes claims 30-31, for examination on the merits.

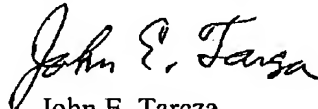
Claims 51-60 were **NOT** designated, as belonging to any group and therefore, the status of these claims is unclear. For the purposes of this response, claims 51-54 and 60 appear to belong with one of the non-elected groups and are considered not elected. Claims 55-59 appear to belong with Group XI and therefore are considered elected.

Claims 1-29, 38-55, 60-65 and 74-80 have been canceled without prejudice. Claims 81-97 are new and depend upon elected claim 30.

Claims 32-37 and 66-73 were considered to belong in groups XII-XIV and XX-XXI respectfully. However, all of the remaining claims should belong to the same group as elected claims 30, 31, 55-59 (and new dependant claims 81-97) as each claim is drawn to the microarray per se without respect to the manner of manufacture or use. While the microarray is described differently, it has the unifying concept of being the product per se and the subject of the present invention. Applicants request all of these claims 30-37, 56-59, 66-73 and new claims 81-97 be considered together. An examination on the merits is respectfully requested.

The commissioner hereby is authorized to charge payment of any fees under 37 CFR § 1.17, which may become due in connection with the instant application or credit any overpayment to Deposit Account No.500933.

Respectfully submitted,



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Date: August 4, 2005

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